

Practitioner's Docket No. 80100.007

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Alan K. Forsythe

Application No.: 10/688,579

Group No.: 3677

Filed: October 17, 2003

Examiner: Robert John Sandy

For: KNOB ATTACHMENT ASSEMBLY

**Mailstop Amendment
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450**

AMENDMENT AND RESPONSE TO NON-FINAL OFFICE ACTION

This amendment and response is in reply to the Non-Final Office Action dated May 24, 2007. Please enter the amendments and remarks as set forth below.

CLAIM AMENDMENTS

Claim 1 (Currently Amended):

A knob attachment assembly comprising:

- (a) a control device housing;
- (b) an actuation member coupled to the control device housing, the actuation member including a first engagement surface and a central axis; and
- (c) a gripping device including a first interference surface, the gripping device being selectively couplable to the actuation member and rotatable about the central axis of the actuation member between a locked position, wherein by interference of the first engagement surface with the first interference surface couples the gripping device to the actuation member, and an unlocked position, wherein the gripping device is removable from the actuation member.

Claim 2 (Original):

The knob attachment assembly of Claim 1, wherein the gripping device includes a key and the actuation member includes a first keyway and a second keyway, wherein the gripping device may be selectively coupled upon the actuation member in either a first orientation or a second orientation by selectively interfacing the key with the first keyway or the second keyway.

Claim 3 (Original):

The knob attachment assembly of Claim 1, wherein the first engagement surface is inclined relative to the first interference surface by a selected separation angle.

Claim 4 (Original):

The knob attachment assembly of Claim 3, wherein the selected separation angle is between about 1 degree and about 10 degrees.

Claim 5 (Previously Presented):

The knob attachment assembly of Claim 1, further comprising a locking member coupled to the gripping device or the actuation member, the locking member positioned

to engage a first projection disposed on the actuation member or a first protrusion disposed on the gripping device to aid in holding the gripping device in the locked position.

Claim 6 (Original):

The knob attachment assembly of Claim 5, wherein the locking member is disposed upon the gripping device or the actuation member so as to be compressed against the first projection or the first protrusion as the gripping device is transitioned from the locked position to the unlocked position.

Claim 7 (Previously Presented):

The knob attachment assembly of Claim 5, further comprising a sidewall surface coupled to either the first projection or the first protrusion, the sidewall surface adapted to engage the locking member when the gripping device is in the unlocked position, wherein the sidewall surface is inclined relative to a plane passing through a center axis of the actuation member.

Claim 8 (Previously Presented):

The knob attachment assembly of Claim 1, further comprising a limit stop coupled to the actuation member, the limit stop positioned to engage a first protrusion disposed on the gripping device to aid in holding the gripping device in the locked position.

Claim 9 (Currently Amended):

The knob attachment assembly of Claim 1, further comprising;

- (a) a second engagement surface disposed on the actuation member;
- (b) a second interference surface disposed on the gripping device; and
- (c) wherein when the gripping device is in the locked position, the gripping device is additionally coupled to the actuation member by interference of the second engagement surface with the second interference surface.

Claim 10 (Previously Presented):

The knob attachment assembly of Claim 5, further comprising an additional locking member coupled to the gripping device or the actuation member, the additional locking member positioned to engage a second projection disposed on the actuation member or a second protrusion disposed on the gripping device to aid in holding the gripping device in the locked position.

Claim 11 (Previously Presented):

The knob attachment assembly of Claim 8, further comprising an additional limit stop coupled to the actuation member, the additional limit stop positioned to engage a second protrusion disposed on the gripping device when the gripping device is in the locked position to aid in holding the gripping device in the locked position.

Claim 12 (Canceled)

Claim 13 (Currently Amended):

A knob attachment assembly comprising:

- (a) a control device;
- (b) an actuation member coupled to the control device, the actuation member including a central axis and having a first projection with a first engagement surface; and
- (c) a gripping device having a first protrusion with a first interference surface, wherein the gripping device is adapted to be selectively keyed upon the actuation member in a first orientation or a second orientation by selective interaction of the first projection with the first protrusion, and wherein the gripping device is selectively couplable to the actuation member and is rotatable about the central axis of the actuation member between a locked position, wherein interference of the first engagement surface with the first interference surface couples the gripping device to the actuation member, and an unlocked position, wherein the gripping device is selectively removable from the actuation member.

Claim 14 (Original):

The knob attachment assembly of Claim 13, wherein the first engagement surface is inclined relative to the first interference surface by a selected separation angle.

Claim 15 (Original):

The knob attachment assembly of Claim 14, wherein the selected separation angle is between about 1 degree and about 10 degrees.

Claim 16 (Previously Presented):

The knob attachment assembly of Claim 13, further comprising a locking member coupled to the gripping device or the actuation member, the locking member positioned to engage a first projection disposed on the actuation member or a first protrusion disposed on the gripping device to aid in holding the gripping device in the locked position.

Claim 17 (Original):

The knob attachment assembly of Claim 16, wherein the locking member is disposed upon the gripping device or the actuation member so as to be compressed against the first projection or the first protrusion as the gripping device is transitioned from the locked position to the unlocked position.

Claim 18 ((Previously Presented):

The knob attachment assembly of Claim 16, further comprising a sidewall surface coupled to either the first projection or the first protrusion, the sidewall surface adapted to engage the locking member when the gripping device is in the unlocked position, wherein the sidewall surface is inclined relative to a plane passing through a center axis of the actuation member.

Claim 19 (Previously Presented):

The knob attachment assembly of Claim 13, further comprising a limit stop coupled to the actuation member, the limit stop positioned to engage the first protrusion to aid in holding the gripping device in the locked position.

Claim 20 (Currently Amended):

The knob attachment assembly of Claim 13, further comprising:

- (a) a second engagement surface disposed on the actuation member;
- (b) a second interference surface disposed on the gripping device; and
- (c) wherein when the gripping device is in the locked position, the gripping device is additionally coupled to the actuation member by interference of the second engagement surface with the second interference surface.

Claim 21 (Previously Presented):

The knob attachment assembly of Claim 16, further comprising an additional locking member coupled to the gripping device or the actuation member, the additional locking member positioned to engage a second projection disposed on the actuation member or a second protrusion disposed on the gripping device to aid in holding the gripping device in the locked position.

Claim 22 (Previously Presented):

The knob attachment assembly of Claim 19, further comprising an additional limit stop coupled to the actuation member, the additional limit stop positioned to engage a second protrusion disposed on the gripping device when the gripping device is in the locked position to aid in holding the gripping device in the locked position.

Claim 23 (Canceled):

Claim 24 (Currently Amended):

A knob attachment assembly comprising:

- (a) an actuation member having a central axis, the actuation member including a limit stop and a first projection;
- (b) a gripping device having a first protrusion;
- (c) a locking member coupled to either the actuation member or the gripping device; and

(d) wherein the gripping device is adapted to be selectively keyed upon the actuation member in either a first orientation or a second orientation by selectively interfacing of the first projection with the first protrusion, and wherein the gripping device is selectively couplable to the actuation member and is rotatable about the central axis of the actuation member between a locked position, wherein engagement of the first protrusion against the limit stop and engagement of the locking member against the first projection or the first protrusion couple the gripping device to the actuation member, and an unlocked position, wherein the gripping device is selectively removable from the actuation member.

Claim 25 (Original):

The knob attachment assembly of Claim 24, wherein the first projection includes a first engagement surface and the first protrusion includes a first interference surface, wherein the gripping device is coupled to the actuation member by interference of the first engagement surface and the first interference surface when the gripping device is in the locked position.

Claim 26 (Original):

The knob attachment assembly of Claim 25, wherein the first engagement surface is inclined relative to the first interference surface by a selected separation angle.

Claim 27 (Original):

The knob attachment assembly of Claim 26, wherein the selected separation angle is between about 1 degree and about 10 degrees.

Claim 28 (Original):

The knob attachment assembly of Claim 24, wherein the locking member is disposed upon the gripping device or the actuation member so as to be compressed against the first projection or the first protrusion as the gripping device is transitioned from the unlocked position to the locked position.

Claim 29 (Previously Presented):

The knob attachment assembly of Claim 24, further comprising a sidewall surface coupled to the either the first projection or the first protrusion, the sidewall surface adapted to engage the locking member when the gripping device is in the unlocked position.

Claim 30 (Currently Amended):

The knob attachment assembly of Claim 25, further comprising:

- (a) a second engagement surface disposed on the actuation member;
- (b) a second interference surface disposed on the gripping device; and
- (e) wherein when the gripping device is in the locked position, the gripping device is additionally coupled to the actuation member by interference of the second engagement surface with the second interference surface.

Claim 31 (Previously Presented):

The knob attachment assembly of Claim 24, further comprising, an additional locking member coupled to the gripping device or the actuation member, the additional locking member positioned to engage a second projection disposed on the actuation member or a second protrusion disposed on the gripping device to aid in holding the gripping device in the locked position.

Claim 32 (Previously Presented):

The knob attachment assembly of Claim 24, further comprising an additional limit stop coupled to the actuation member, the additional limit stop positioned to engage a second protrusion disposed on the gripping device when the gripping device is in the locked position to aid in holding the gripping device in the locked position.

Claim 33 (Canceled)

Claim 34 (Currently Amended):

The knob attachment assembly of Claim 1, wherein the first engagement surface is inclined relative to the first interference surface by a selected separation angle, wherein the separation angle is selected so that, as the gripping device is rotated relative to the actuation member, the resistance to rotation ~~amount of friction between the first engagement surface and the first interface surface~~ varies according to the engagement between the first engagement surface and the first interference surface.

Claim 35 (Currently Amended):

The knob attachment assembly of Claim 13, wherein the first engagement surface is inclined relative to the first interference surface by a selected separation angle, wherein the separation angle is selected so that, as the gripping device is rotated relative to the actuation member, the resistance to rotation ~~amount of friction between the first engagement surface and the first interface surface~~ varies according to the engagement between the first engagement surface and the first interference surface.

Claim 36 (Currently Amended):

The knob attachment assembly of Claim 25, wherein the first engagement surface is inclined relative to the first interference surface by a selected separation angle, wherein the separation angle is selected so that, as the gripping device is rotated relative to the actuation member, the resistance to rotation ~~amount of friction between the first engagement surface and the first interface surface~~ varies according to the engagement between the first engagement surface and the first interference surface.

REMARKS

I. General.

Applicant thanks the Examiner for indicating the presence of allowable subject matter in the present application.

Claims 34-36 were objected to for failing to provide antecedent basis for the claimed subject matter. Claims 34-36 were also rejected under 35 U.S.C. § 112, second paragraph as being indefinite. By way of the aforementioned amendments to claims 34-36 Applicant has obviated the foregoing objection and rejection. Accordingly, Applicant respectfully requests allowance of claims 34-36.

Claims 1-4, 9, 13-15, 20, 24, and 28 have been rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 1,333,998 to Shook (hereinafter referred to as "Shook"). For at least the reasons that follow, Applicant respectfully requests reconsideration and withdrawal of the rejections based on Shook.

II. Shook does not teach or suggest all the elements of claims 1-4, 9, 13-15, 20, 24, and 28.

Independent claims 1, 13, and 24 recite that the gripping device is rotatable about the central axis of the of the actuation member between a locked position and an unlocked position. Accordingly, in each of the rejected claims the gripping device rotates between a locked and unlocked position. According to the Examiner, the device of Shook is provided with a locked position and an unlocked position. However, Applicant respectfully points out that the device of Shook does not rotate between the purported locked and unlocked positions. Rather, in Shook, the transition between the purported locked and unlocked positions occurs only as a result of axial movement of the clutch member 5' relative to the ratchet 4. Accordingly, for at least this reason, Shook does not teach or suggest all the elements of the rejected claims; and, therefore, for at least this reason, Applicant respectfully requests reconsideration and withdrawal of the rejections based on Shook.

Independent claims 1 and 13 recite "an actuation member is coupled to the control device housing". According to the Examiner, the sleeve 1 and ratchet 4 of Shook respectively correspond to the control device housing and actuation member. However, the ratchet 4 is not coupled to the sleeve 1 of Shook. Rather, the "sleeve 1 has its bore enlarged, as at 3, to accommodate the outstanding annular ratchet 4. Shook, Pg. 1, ll. 77-

79. Accordingly, the sleeve 1 accommodates the ratchet 4, but is not coupled to the ratchet 4. Consequently, for at least this reason, Shook does not teach or suggest all the elements of the claims 1 and 13; and, therefore, for at least this reason, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 1 and 13 based on Shook. Furthermore, since claims 2-4 and 9 depend from claim 1 and claims 12-15 and 20 depend from claim 13, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 2-4, 9, 12-15, and 20, for at least this reason, as well.

Dependent claims 3 and 14 recite “wherein the first engagement surface is inclined relative to the first interference surface by a selected separation angle.” According to the Examiner, a surface on the teeth 6 of the ratchet 4 corresponds to the first engagement surface and a surface on the teeth 7 of the clutch 5’ corresponds to the first interference surface. Furthermore, according to the examiner these surfaces are inclined relative to each other at a “zero angle”. Applicant respectfully submits that a “zero angle” is not relative inclination between these surfaces. Rather, a “zero angle” necessarily means that there is no relative inclination between these surfaces. Consequently, for at least this reason, Shook does not teach or suggest all the elements of the claims 3 and 14; and, therefore, for at least this reason, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 3 and 14 based on Shook. Furthermore, since claims 4 and 15 depend from respective claims 3 and 14, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 4 and 15, for at least this reason as well.

III. Conclusion

Applicant submits that the subject matter of the present application is novel, nonobvious, and useful. Accordingly, Applicant respectfully requests that the rejections and objections be withdrawn and that the present application issue as early as possible.

Dated: August 8, 2007

/Michael Pruden/
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